

Remarks/Arguments

Claims 1-15 remain pending in the present application. Claim 1 has been amended. No claims have been added and no claims have been canceled. Applicants believe the claims currently in the case patentably distinguish over the cited art, and that this application is now in condition for allowance. Reconsideration of the rejection is, accordingly, respectfully requested in view of the above amendments and the following comments.

I. 35 U.S.C. § 112, Second Paragraph

The Examiner has rejected claim 1 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, the Examiner states that the limitation "the information" in claim 1, lines 9-10 lacks antecedent basis.

By the present Amendment, claim 1 has been amended to change the limitation "the information" to --information--. Claim 1 is now believed to be clear and definite throughout and to fully satisfy the requirements of 35 U.S.C. § 112, second paragraph.

Therefore, the rejection of claim 1 under 35 U.S.C. § 112, second paragraph has been overcome.

II. 35 U.S.C. § 102, Anticipation

The Examiner has rejected claims 1-15 under 35 U.S.C. § 102(e) as being anticipated by Jeffords et al. (U.S. Patent No. 6,233,623). This rejection is respectfully traversed.

In rejecting the claims, as being anticipated by Jeffords et al., the Examiner states:

As to claim 1, Jeffords teaches a client server system using distributed objects, comprising: a client connected to a communication network for performing an access request to an object (col. 14, line 36-col. 15, line 17); an application server for performing an application by an actual object according to the access request by said client (col. 14, line 36-col. 15, line 17); and an object pool server connected to said client through said communication network and connected to said application server for pooling a proxy object corresponding to

said actual object and for holding actual object management information that is part of said actual object (col. 14, line 36-col. 15, line 17) wherein said application server notifies said object pool server of an event according to a change in status of said application, and said object pool server automatically updates said actual object management information according to the notification of said event from said application server (col. 14, line 36-col. 15, line 17).

Office Action dated March 26, 2004, pages 2 and 3.

Claim 1 of the present application, as amended herein, reads as follows:

1. A client server system using distributed objects, comprising:
 - a client connected to a communication network for performing an access request to an object;
 - an application server for performing an application by an actual object according to the access request by said client; and
 - an object pool server connected to said client through said communication network and connected to said application server for pooling a proxy object corresponding to said actual object and for holding actual object management information that is information on said actual object, wherein said application server notifies said object pool server of an event according to a change in status of said application, and said object pool server automatically updates said actual object management information according to the notification of said event from said application server.

Jeffords et al. (hereinafter Jeffords) does not disclose a client server system using distributed networks that includes "an object pool server connected to said client through said communication network and connected to said application server for pooling a proxy object corresponding to said actual object and for holding actual object management information that is information on said actual object, wherein said application server notifies said object pool server of an event according to a change in status of said application, and said object pool server automatically updates said actual object management information according to the notification of said event from said application server".

Col. 14, line 36-col. 15, line 17 of Jeffords, referred to by the Examiner as disclosing the subject matter of claim 1, states:

5. Updating State Information

Fig. 8 is a flowchart of a method for updating state information 100.

Starting at Step 101, a particular system, (e.g., process 1) updates its own contact status vector (Step 102). Next, process 1 contacts the other systems (Step 103). Further action depends upon whether the contact is successful (Step 104); if not successful, process 1 updates its state vector with "lost" for the noncontacted system; e.g., process 2 (Step 105). If contact was successful, process 1 updates its state vector with ESTB for the contacted system, e.g., process 3 (Step 106). In either case, process 1 then sends out a copy of its state vector to the other systems, e.g., processes 2-n (Step 107). Then process 1 continues to contact other systems (Step 108); when all processes have been attempted to be contacted, the method ends (Step 109).

The RRM has many areas of potential application. For example, in a switched communications network having a distributed call management system, a resource manager can be provided for each of a plurality of distributed call management processes. See, for example, the switched network described in copending and commonly owned U.S. Serial No. 08/188,238 filed Jan. 28, 1994 by K. Dobbins et al., hereby incorporated by reference in its entirety. A distributed memory space can be divided into separate pools for each of the following services: topology, directory, policy and call. A first benefit of incorporating RRM in this system is that every process is provided with a consistent view of the network. For example, every process can have access to a policy pool which may specify, for example, that node-a is permitted to communicate with node-b. As a further example, when a node in the network topology changes, it is important that every switch be notified of the change. Using RRM, state changes are seen everywhere so that every switch has the same view of the network topology. A second benefit is fault tolerance; for example, because the call pool has an object for every call, if one call management process goes down, another call management process can take over the calls in the call pool previously owned by the failed process; this can be done quickly with essentially no interruption in service. A third benefit is load sharing. The various call management processes can distribute ownership of calls in order to balance the workload. A fourth benefit is scalability; additional call processes can be added to the system easily without requiring reprogramming of the prior systems. Yet another important benefit from a programming perspective is that the programmer does not need to know where any given method or change of object is executed, only that the result is the same.

Jeffords describes a procedure in which a particular system updates its own contact status vector and then contacts other systems. If contact is made with another system, the particular system updates its state vector with ESTB (contact with the process has been established) for the contacted system, and then sends out a copy of its "state vector" to other systems.

Nowhere does Jeffords disclose that an "application server notifies said object pool server of an event according to a change in status of said application", and that an object pool server "automatically updates actual object management information according to the notification of said event from said application server". Jeffords appears to be concerned with contacting other systems in a network, and then updating its own state vector and sending a copy of the state vector to the other contacted systems. Jeffords defines a "state vector" in col. 12, lines 52-58 as follows:

A state vector is a one-dimensional associative array of logical object name to logical object state. Each name is an "index" into the vector, and each state is stored in a "slot" associated with an index. A state vector is generated by an object and describes what that object thinks the state of all objects in the vector is. It is the object's view of itself and "relative" view of all other objects.

Updating a state vector in Jeffords, accordingly, is not the same as "updating actual object management information". Accordingly, Jeffords does not disclose "updating actual object management information" as recited in claim 1; and does not disclose that actual object management information is automatically updated "according to the notification of said event from said application server" as also recited in claim 1.

For at least all the above reasons, claim 1 is not anticipated by Jeffords, and withdrawal of the rejection thereunder is respectfully requested

Claim 2 depends from and further restricts claim 1, and is also not anticipated by Jeffords, at least by virtue of its dependency.

Independent claim 3 recites as follows:

3. An object pool using distributed objects, comprising:
 - a client request analyzing unit for analyzing an access request to an object;
 - an object information storage unit for storing object information at the termination process of said object pool;
 - an object creating unit for creating an object at the starting process of said object pool according to said object information stored by said object information storage unit; and
 - an object managing unit for pooling the object created by said object creating unit before accessing said object from said client.

Jeffords does not disclose "an object information storage unit for storing object information at the termination process of said object pool", and does not disclose "an object creating unit for creating an object at the starting process of said object pool according to said object information stored by said object information storage unit". In addition, Jeffords does not disclose "an object managing unit for pooling the object created by said object creating unit before accessing said object from said client" as recited in claim 1.

In Jeffords, a method is disclosed that is primarily involved in establishing contact with other systems. Jeffords does not anywhere disclose storing object information at a termination process of an object pool, creating an object at a starting process of an object pool, and pooling the created object before accessing the object from a client.

Claim 3, accordingly, is also not anticipated by Jeffords, and withdrawal of the rejection of claim 3 as being anticipated by Jeffords, and of claim 4 dependent on claim 3, is also respectfully requested.

Independent claims 5, 10, 11, 12 and 14 recite limitations similar to claim 1, and are not anticipated by Jeffords for substantially the same reasons as discussed above with respect to claim 1.

Claims 6 and 7 depend from claim 5, and claim 13 depends from claim 12, and are also not anticipated by Jeffords, at least by virtue of their dependency.

Independent claim 8 contains limitations similar to claim 3, and is not anticipated by Jeffords for substantially the same reasons as discussed above with respect to claim 3.

Claim 9 depends from and further restrict claim 8, and is also not anticipated by Jeffords, at least by virtue of its dependency.

Independent claim 15 reads as follows:

15. A program sending apparatus, comprising:
a storage unit for storing a program which makes a computer execute an object pooling process for pooling, on a server, objects associated with execution of an application utilizing distributed objects, an information storing process for storing object information in said server, and a creation sequence determining process for determining a sequence of objects to be created according to said object information stored by said information storing process; and
a sending unit for reading out said program from said storage unit, and sending said program.

Jeffords does not disclose "a creation sequence determining process for determining a sequence of objects to be created according to said object information stored by said information storing process". Jeffords nowhere discusses determining a sequence of objects to be created and nowhere discloses that such a sequence is according to object information stored by an information storing process.

Claim 15, accordingly, is also not anticipated by Jeffords and withdrawal of the rejection thereunder is respectfully requested.

Therefore, the rejection of claims 1-15 under 35 U.S.C. § 102 has been overcome.

Furthermore, Jeffords does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. Accordingly, one of ordinary skill in the art would not be led to modify Jeffords to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify Jeffords in this manner, the presently claimed invention can be reached only through an improper use of hindsight using the Applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

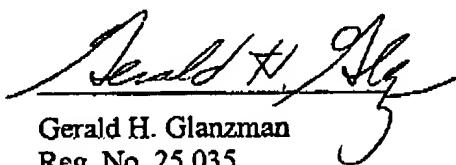
III. Conclusion

It is respectfully urged that the subject application is patentable over Jeffords and is now in condition for allowance.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,



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